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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/055,028

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Thomas W. Christoffel

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EXAMINER

GREY, CHRISTOPHER P

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/055,028

Applicant(s)

CHRISTOFFEL ET AL.

Examiner

Christopher P. Grey

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11 Pages
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuniolo et al. (US 6201962) hereinafter referred to as Stuniolo, in view of Keane et al (US 2002/0056008) hereinafter referred to as Keane.

**Claim 1, 9, 17, 23, 25, 30, 32** Stuniolo discloses establishing a secure connection from the mobile device through an initial access point to an initial gateway server (Col 6 lines 11-22 and Col 6 lines 57-Col 7 lines 17).

Stuniolo discloses a triggering event that initiates a transfer of the mobile device from the initial access point to a target access point (Col 6 lines 23-38).

Stuniolo also discloses seamless roaming from one access point to another (Col 6 lines 23-56) and updating a gateway with information pertaining to a connection (Col 26 lines 24-44).

Stuniolo discloses each gateway being coupled via a hardwired or wireless connection (Col 25 lines 40-54).

Stuniolo discloses registering (requesting) an address of the mobile device in the event that roaming occurs where an identifier is obtained for the second LAN network (*Claim 18*: Col 9 lines 66-Col 10 lines 38)

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Sturnolio does not specifically disclose providing connection information to a target gateway server from the initial gateway server about the secure connection. Sturnolio does not disclose receiving the connection information at the target gateway server to maintain the secure connection from the mobile device through the target access point back to the initial gateway server.

Keane discloses a tunnel coupling gateways in order to exchange information in a secure an efficient manner (paragraph 0101 and 0105 and 0111).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the control system as disclosed by Keane within the communication system as disclosed by Sturnolio in order exchange relevant information from one gateway to another securely (para0111).

**Claim 2, 10, 22, 29** Sturnolio discloses the mobile device being assigned an internet protocol address by the initial gateway server and the secure connection being based on the information including maintaining the secure connection based on the internet protocol address assigned to the mobile device (Col 6 lines 39-56 and Col 7 lines 57-Col 8 lines 8).

**Claim 3, 11** Sturnolio does not specifically disclose the step of providing a nested tunnel to couple the initial gateway server and the target gateway server.

Keane discloses the step of providing a nested tunnel to couple the initial gateway server and the target gateway server (paragraph 0101 and 0105 and 0111).

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It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the control system as disclosed by Keane within the communication system as disclosed by Sturnolio in order exchange relevant information from one gateway to another securely (para0111).

**Claim 4, 12** Sturnolio discloses a hardwired connection between the initial gateway server and the target gateway server (Col 25 lines 40-54).

**Claim 5, 13** Sturnolio discloses a triggering event known as roaming (Col 6 lines 23-56), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that roaming is equivalent to a mobile device being out of range of one access point and into the range of another access point.

**Claim 6, 14** Sturnolio discloses the triggering event known as roaming, where it would have been obvious to one of the ordinary skill in the art at the time of the invention that when a mobile device roams, there is a decrease in the level of congestion from the initial access point as pertained to the mobile device, and an increase in the congestion level to the now serving access point (handover).

Therefore using a congestion level as a triggering event is well known within the art.

**Claim 7, 15** Sturnolio discloses each access point containing a section for performing demodulation (Col 20 lines 25-38), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that encrypted information is well known to be decrypted in a receiver.

Furthermore, Keane discloses encapsulated information being received and decrypted by a gateway (paragraph 0147)

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**Claim 8, 16** Sturnolio does not specifically disclose establishing a virtual representation of the initial gateway server at the target gateway server.

Keane discloses a number of gateways exchanging information including one another's identity, where the identity is equivalent to a virtual address (paragraph 0109-0111).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the control system as disclosed by Keane, within the communication system as disclosed by Sturnolio. The motivation for this modification is to allow the creating of a tunnel from one gateway to another, where in order to exchange information, each gateway knows the virtual address of adjacent gateways (paragraph 0111).

**Claim 19, 26** Sturnolio discloses the first network being a LAN (Col 5 lines 49-61), the second network being a cellular communication network (Col 5 lines 34-48), and the mobile device being a personal digital assistant (Col 5 lines 34-48).

**Claim 20, 27** Sturnolio discloses registering (request) a mobile device comprising assigning a network identification or address (Col 6 lines 39-56).

**Claim 21, 28** Sturnolio discloses providing a form of authentication request based on a request to a dynamic server (Col 28 lines 53-Col 29 lines 59).

**Claim 24, 31** Sturnolio discloses a domain name server for performing the conventional function of providing name to network address mapping for devices within the LAN (Col 7 lines 18-33).

***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Leung et al. (US 6795857) discloses a method and apparatus for providing mobility of a node that does not support mobility.

(b) Crosbie (US 20020035699) discloses a method for enabling seamless roaming in a wireless network.

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571)272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Grey  
Examiner  
Art Unit 2667

C. Grey  
1/18/06

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
1/22/06